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The Impact of Heterogeneous or Homogeneous Grouping on Improving Early Elementary Students' Fluency Scores

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Abstract

The purpose of this action research was to determine the effect of the type of groups used on students' fluency scores. The participants of the study were 18 2nd grade students. Data was collected over a 16-week period of time using running records. The first eight weeks of the research students worked with a homogeneous partner and used strategies to work on improving their fluency scores. The second eight weeks students worked with a heterogeneous partner but used the same strategies to work on reading fluency. The data was then analyzed to determine if working with a homogeneous partner or a heterogeneous partner had a greater impact on the students' fluency scores.

The Impact of Heterogeneous or Homogeneous Grouping on Improving Early Elementary

Students' Fluency Scores

Reading fluency is a child's ability to read text with appropriate rate and accuracy.

Fluency is a skill that will help students be able to understand a text better because they are not

spending time trying to decode words but rather they can put their energy into remembering what

they are reading. Fluency is a skill that students need to begin working on as soon as they learn

how to read. There are many ways to help support reading fluency for students. One of the

problems teachers often have is the amount of time it takes when there is so many other aspects

of reading that are also required to be taught.

One-way teachers can help solve the time issue is to partner students up and have them

help each other work on fluency. Students can work together in two different types of pairs or

groups, heterogeneous or homogeneous. In heterogeneous groups students work with other

students who are at different reading levels than them. In a homogeneous group student's work

with students who are at the same reading level that they are. When students are partnered up,

they can be taught various strategies to use with their partners to work on increasing their

fluency.

In this paper, the question of what impact does heterogeneous or homogeneous grouping

have on improving early elementary students' fluency scores will be researched. The literature

review begins by providing further detail about what heterogeneous and homogeneous groups

are and the impact of using them in the classroom. The content specifically looks at how using

peers as a tutor in a heterogeneous setting can be beneficial in helping to improve reading

fluency. The next section of the literature review discusses several different strategies that can be

used in the classroom to improve reading fluency for students. Finally, the paper shows the

relationship between students working with a heterogeneous partner and a homogeneous partner and what impact that had on the students reading fluency scores.

Review of the Literature

"Fluent oral reading is essential for success in elementary school" (Marr, Algozzine, Kavel & Keller Dugan, 2010, p. 74). Fluency is a skill that will not only help students be successful in reading, but in every subject area. As students begin to engage in more complex text it is important that they can fluently read and understand what they are reading. Students who are fluent in their reading are able to read the text with speed, accuracy, and proper expression (National Reading Panel, 2000). Although fluency is a critical component of being a skilled reader, it is found to often be neglected in the classroom (National Reading Panel, 2000). Although teachers do not intentionally neglect fluency it happens due to all the other aspects of reading and other content that must be taught. It can also be difficult for teachers to know how to best teach students to read fluently. Hofstadter-Duke and Daly (2011), stated one reason teachers may neglect fluency is the pressure they feel to focus the time on other tasks such as comprehension. Therefore, it is crucial that teachers are able to find strategies to successfully help all of their students improve their reading fluency in the classroom that will not take time away from other skills they also need to be focusing on with their students.

Heterogeneous Grouping

Heterogeneous grouping is pulling and grouping students from different levels together rather than only putting students of the same ability level together. One benefit to heterogeneous grouping is being able to focus on the students' interest or needs rather than their level (Bates, 2013). This allows the teacher more flexibility with reading group schedules. Rather than having to create a group for each level and only have a couple students per group, the groups can be of

students at all levels. Teachers can also keep students engaged by pulling books that appeal to

the groups interest rather than level Bates (2013) pointed out this can be a great way to teach

students of different levels who all may need to work on reading more fluently rather than word

by word. This is a time when the teacher can provide modeling for how reading should sound

and preview various text for the students. The teacher is able to pull students who lack the skill

regardless of their reading level and provide a short mini lesson on phrasing and model what

fluent reading should sound like for the students (Bates, 2013). Students are then able to take the

skill they learned and practiced in their heterogeneous group and apply it to their own

independent reading level (Bates, 2013). When students practice in a heterogeneous group, it is

also likely they will have a fluent peer to assist them if they need it.

        Another way teachers have been able to help their students improve their reading fluency

is through the use of peers. Using peer tutors can helps teachers solve the problem of time when

trying to provide instruction to all students. According to Hofstadter-Duke and Daly (2011), the

use of peers can be beneficial because it will "reduce the amount of direct instruction required by

teachers, peers are readily available resources and have frequent contact with each other" (p.

641). Time is one of the biggest struggles many teachers have regardless of what they are trying

to teach. If peers can be used to help improve fluency, the teacher can be working on teaching

other skills during the same time. The use of peers to help support reading fluency is also

beneficial because students are able to receive immediate feedback on their reading (Dufrene,

Reisener, Olmi, Zoder-Martell, McNutt, & Horn, 2010). Struggling readers need to have

immediate correction and feedback so they can make the correction rather than continuing to

practice the skill incorrectly. If they have to wait until a teacher can get to each student, they

could spend a significant amount of time practicing something wrong, if a peer is able to work

with them it can be corrected immediately. When peers are trained and used as tutors, students

have the potential of receiving individualized instruction that does not require the teacher too

much demand (Dufrene et al., 2010).

      A study completed by Hofstader-Duke and Daly (2011) paired a struggling reader with

three peers in the classroom. The subject exceeded the average reading performance of the

classroom and grade level. The intervention that was provided to the struggling reader included

instruction and a reward. The instruction time of the intervention included a listening passage

preview read by the tutor to model fluent reading for the struggling reader, repeated readings of

the same passage and error corrections (Hofstader-Duke & Daly, 2011). By including the

listening preview, it allows for the struggling reader to hear what it should sound like first.

Decker and Buggey (2012) also stated the importance of having a fluent model because of the

fact that "fluency requires proper intonation, speed, and prosody of smooth expressive reading"

(p. 167). The study found that the struggling reader improved in both correct words read per

minute as well as decreased the numbers of errors made (Hofstader-Duke & Daly, 2011). Once

students become more accurate with their reading, the fluency can begin to develop even

stronger as they are not having to focus as much on decoding. Dufrene et al. (2010) found that by

using peer tutors the opportunity for students to respond and gain immediate feedback about their

work increased. One benefit the teacher of the student also saw was in the way the child

interacted with other children after the intervention. The teacher also noticed a difference in the

student both in reading and peer interactions and she saw less negative interactions than she had

before (Hofstader-Duke & Daly, 2011).

      A similar study used high school students to tutor middle school students with learning

disabilities to help improve their reading fluency (Lingo, 2014). This could be a solution to

teachers in lower elementary when many students may not yet be reading fluently. If there are

older students in the building, who could serve as tutors it could help the younger students. In

this study, four middle school students were paired with a high school tutor who had received

training in the reading program being used as the intervention (Lingo, 2014). After students are

trained properly in an intervention, they can serve as a great resource to teachers. These peers

were able to help students improve their reading fluency without a teacher needing to be there.

During each session, the tutor provided instruction in the following three areas: phonics, sight

phrases, and story passages. By incorporating phonics practice, the students will be able to apply

the skills outside of the tutoring sessions. The study found that all four students made

improvements in their reading fluency through the use of peer tutor and repeated readings

(Lingo, 2014). The teachers of these students stated noticing an improvement in how the students

were reading by going from word-by-word to faster fluent reading (Lingo, 2014).

     A study by Olson (2014) used peer tutoring but had added in some additional training and

instruction which made the weaker reader become the expert of the pair. Having the weaker

student act as the tutor provides them with an opportunity usually only the stronger readers are

given. This can help provide the weaker reader with even more time with the text. The study

looked at whether providing the lower performing reader with instructional sessions before

working with a peer would help them view themselves as the expert when working with their

peer (Olson, 2014). Providing students with information upfront and before they are asked to

present to a whole group is a strategy teachers can use to help the students feel more confident

and prepared. The study contained two groups, in the comparison group both the tutor and tutee

were given the prior instructional session and in the experimental group only the tutor (lower

performing student) was given the prior instructional session (Olson, 2014). The first part of the

study was the instruction phase, for the students that were receiving the prior instruction they worked one on one with the researcher while the other student sat on the other side of the room with headphone on so they were unable to hear the interactions (Olson, 2014). This allows the tutor to have the additional exposure to the text without the tutee also receiving it by being able to hear the instructor. The next step was peer tutoring phase which occurred right after receiving the instruction for the tutor (Olson, 2014). The tutor used the same text they had used earlier in the instructional phase with the researcher and were reminded to use the methods they had learned from the researcher (Olson, 2014). Making sure to complete this step right after the tutor received the instruction allows the tutor to be sure they are using the correct strategies. Since the lower student is acting as the tutor it also helps with confidence, they know what they are expected to do since they were just taught and told in their learning session.

Each tutoring phase began with the tutee reading the passage and the tutor helping them with words they did not know, the tutor also had to review the six vocabulary words at least one time with their tutee and then after that, they were allowed to choose what else they included in their tutoring sessions (Olson, 2014). Instruction with the vocabulary words helps readers to better comprehend the text. If the text was about a topic the reader was unfamiliar with the vocabulary instruction can lead to higher comprehension but also fluency since they will not have to try to decode the word or figure out the meaning. Both tutors had similar fluency accuracy and rate scores on the pre-instruction assessment and post-instruction assessments but had significantly different scores on the post-peer tutoring assessments (Olson, 2014). The researcher stated this could be because the experiential tutor was able to follow along better with their tutee and allowed them time to think of the proper pronunciation of challenging words and this also allowed them more opportunities to provide assistance than the comparison group

(Olson, 2014). When both the students receive the prior instruction, it gives the already stronger

reader even more of an advantage. They now have a better fluency rate but also know the text

specific vocabulary and background. The group in which only the lower reader received the prior

instruction they were able to have the benefit of knowing the vocabulary and background so

when their partner had questions they were able to have the practice of helping them. The study

shows that it can be helpful for lower performing students to work with peers in which they are

the experts, this allows them to have more assists to their peer which means they are listening to

the tutee read more and also having more opportunities to read to the tutee as well as increase

their motivation to act as the tutor role (Olson, 2014). Even though the lower performing student

was the tutor, the study was set up in a way that they were still doing much of the reading and

getting the practice by helping the tutee. Lower performing students can gain practice but also

confidence by being able to act as the expert sometimes.

Homogeneous grouping

Homogeneous grouping is putting students together based on their ability and academic

level. Those who favor the homogeneous grouping style believe the engagement of the students

may be greater if the instruction they are receiving is adapted to their ability through using this

style of grouping (Hong & Hong, 2009). If students are working in a group on skills they already

have, their engagement may not be as great because they could become bored. Working in

homogeneous groups allows the teacher to keep the students engagement by planning lessons

that will be at instructional level and keep the students engaged. Hong, Corter, Hong and

Pelletier (2012) point out that by placing students in homogeneous grouping teachers can focus

on what students are able to learn based on prior skills and know what will become levels of

challenge for the group. Teachers can target their instruction to better challenge and extend

students if everyone is at the same level. In a study completed by Adelson and Carpenter (2011)

looked at Kindergarten students and the effect homogeneous grouping had on students,

specifically Kindergarten students who were part of a gifted program. The study found that the

students did benefit from being placed in homogeneous achievement groups and there was even

more growth when the groups were smaller (Adelson & Carpenter, 2011).

A similar study on Kindergarten students and the reading growth rate was conducted by

Hong and Hong (2009). In this study, research looked at the relationship between homogeneous

grouping and time spent on reading instruction (Hong & Hong, 2009). The study was trying to

determine if group type would even matter if teachers did not have the time to teach. The study

found when students were engaged for a sustained period in tasks that were at their ability level

they had the most learning facilitated (Hong & Hong, 2009). If students are working at a level

that is too high or too low they may become bored or frustrated. This will lead to lower

engagement and therefore less learning happening for the student. However, they also found that

there was no benefit to homogeneous grouping versus no grouping at all when the instructional

time for reading was limited (Hong & Hong, 2009). This is what can make group learning such a

challenge for teachers. There is often not enough time in the day to place students in

homogeneous groups and allow each group to meet with the teacher every day. As the research

for using heterogeneous peer-tutors stated, using peer tutors is an efficient way to provide

students instruction they need because "students are in abundant supply in our schools" (Dufrene

et al., 2010, p. 242). Although it would be, great and the results would show if teachers could

teach small groups and at each level all day every day the use of peers allows more students to

receive the opportunity to practice and receive immediate feedback.

On the other side of the argument is Worthy (2010) who looked at teachers and the way they approach their classes based on which ability group they are working with in their classroom. Many teachers have different expectations or ideas about what the class can do depending on if they are above grade level or below grade level. Worthy (2010) wrote that after completing her research, which included; talking to teachers, watching teacher and student interactions, and studying research on ability grouping, that she believes ability grouping is a harmful practice. Ability grouping can harm the students who are placed in the lower ability group or class. In her research and the teachers she worked with Worthy (2010) noticed the teachers had lower expectations and watered down instruction for students in the lower ability group (regular classes) than they did for the higher ability groups (honor classes). This can often lead to creating more of a gap between the groups of students.

While the higher students still need to be challenged and engaged, the work we are asking lower ability groups to do still needs to be rigorous and helping them continue to grow. When we do not challenge the students just because they are below grade level we are only adding to the problem. Worthy (2010) also describes the difference in instruction the different ability classes received. While one class may be below grade level, with the right supports and teaching they are still able to achieve high quality work. In the lower ability class students read below grade level text or from the basal reader and completed worksheets about the story or were working on test preparation while students in the higher ability classes read for long periods of time, had open discussions and worked with peers to create projects about the books they had read (Worthy, 2010). Teachers need to provide all students with complex text and then provide support and strategies to help students be able to read and understand the text. All students

should be working and having discussions with peers as this allows them to learn from each

other and gain a better understanding.

Strategies

One strategy to improve reading fluency is through the use of repeated readings. Stevens,

Walker, and Vaughn (2016) stated that repeated readings could be completed either with a

teacher or with peer feedback. Using repeated readings allows the student to have more exposure

to the text and to be able to focus on fluency rather than decoding a new text each time they are

reading. They also found that using repeated readings with a fluent model first was more

effective than a repeated reading without a model (Stevens et al., 2016). This allows the

struggling reader to hear the text read correctly and fluently first. They can follow along as it is

being read to them. While they noted that teacher modeling would provide the best example of

fluent reading that is not always possible in the classroom so the teacher may use peer repeated

reading instead (Stevens et al., 2016). Students who are reading above grade level in rate and

accuracy can be taught how to provide support and feedback to their peers. Lingo (2014) found

that the use of repeated readings was an effective way to increase the reading fluency of students.

One study Kostewicz and Kubina (2010) looked at compared the use of typical repeated

readings and a new strategy called interval sprinting. In typical repeated readings, the student

would read the entire passage all at once and then read the same complete passage multiple

times. In using interval sprinting the teacher or experimenter broke the passage up into six parts,

in this specific study the passage was 204 words so each section of text contained 34 words for

the student to read (Kostewicz & Kubina, 2010). By breaking the passage up the student is able

to focus on just a small section rather than worrying about the entire text at once. The student

began reading at the first word and read for 10 seconds, when the timer went off the teacher

marked the last word and recorded any mistakes, the student then goes back to the beginning of the same section and reads the same section for 10 seconds again (Kostewicz & Kubina, 2010). As with typical repeated readings, this gave the student additional exposure to the same text. The student is able to become more fluent each time because they are becoming more accurate and familiar with the text. This process was repeated with the first three sections and after finishing the third section the teacher then went back, gave feedback, pointed out mistakes to the student, and had the student correct the mistakes (Kostewicz & Kubina, 2010). The same process was completed with the final three sections.

After all six sessions were completed following the steps the student then went back and started reading at the beginning of the passage for one minute (Kostewicz & Kubina, 2010). Reading the entire passage then gives the reader a chance to put all the sections together and correct mistakes they made. The study found that the students read more words correctly but also had more incorrect words when they used the interval sprinting strategy compared to the typical repeated reading strategy (Kostewicz & Kubina, 2010). This could be due to the student not receiving feedback after each read. The student read the passage three times before they were corrected; students may continue to make the same mistake even after it was corrected since they had read it incorrectly three times before they were able to receive feedback and corrections. During phase one on average, the students read 17 more words correctly and three more incorrectly with interval sprinting (Kostewicz & Kubina, 2010). Since the process helped to increase correct words per minute, if a change is made and students are given immediate feedback and can fix mistakes it may help the mistakes to decrease. Similar to phase 1, in phase 2 students read 29 more correct words and 2 more incorrect (Kostewicz & Kubina, 2010).

For some students, the skill of reading fluency is one that they need to be directly taught and given the skills to be able read fluently. In a study by Toste et al., (2016) they found five instructional routines to help teachers deliver their instruction; affix learning, peel off reading, word-building games, word reading fluency, and connected text reading (Toste et al., 2016). In the affix learning practice the teacher introduces a new affix, writes it on the board and students read it (Toste et al., 2016). The teacher then provides a definition; students come up with a sample word containing the affix and then record the affix on a chart (Toste et al., 2016). The next practice, peel off reading, students break a multisyllabic word into parts they may already know; looking for the affix and then reading the other chunks of the word and then finally blending the whole word back together (Toste et al., 2016). This practice is especially important for students to be able to use as they begin reading more complex text. The students need to be able to find chucks in a word they do not know so they are not having to sound out each individual letter. The next instructional practice, word building games, students begin with a base word and then work on adding prefixes and suffixes (Toste et al., 2016). Students build both real and nonsense words in order to gain the practice of correctly and quickly decoding multisyllabic words (Toste et al., 2016). By starting with a base word, students will already know a large part of the word. The student is then able to focus on adding the prefix or suffix and blending the word together. Eventually, students will hopefully be able to recognize a prefix or suffix and be able to read the words without having to break it up into parts.

"Researchers have shown that an excellent predictor of student reading fluency is the amount of time students spend reading" (Toste et al., 2016, p. 275). One-way teachers can be sure to provide this is by building in independent time in the classroom for silent reading or partner reading. This allows students to practice all the skills they have been given and for the

teacher to do a quick check in and listen to them. In order to provide students with this time the

fourth instructional practice teachers can use is word reading fluency. Students are given a list of

specifically chosen words and then read them to the teacher so the teacher is able to provide

immediate feedback, the readings can also be timed to help target-reading rate (Toste et al.,

2016). Finally, the fifth instructional practice is connected text reading (Toste et al., 2016).

Teachers need to pull text that is connected to the skills the reader is working on and the text

does not have to be long passages, some students may begin by reading sentences containing the

specific skill they have been working on in their small group or as a whole class (Toste et al.,

2016). This is another opportunity for the teacher to listen to students and see if they are able to

transfer skills and apply them to actual text. One problem some students may face is being able

to use the skills in small group and in isolation practice but then having problems transferring

them into their everyday reading. Selecting text that specifically targets the skills being taught

provides additional support for the reading to use the new skills. Toste et al., (2016) found that

the students who received instruction using these five practices saw significant growth when it

came to their word identification, decoding, and spelling when compared to those who did not

receive instruction using these 5 practices.

Clementi (2010) states that repeated readings are a proven strategy to help improve

reading fluency but they can become boring, she suggests using Readers Theater, which still uses

repeated readings but in a more engaging way. Many students can become bored when asked to

read the same book or passage repeatedly. When students are asked to, use repeated readings but

with Readers Theater they have more fun with it and it becomes more entertaining for them.

While students are preparing their readers theater they will practice the same part for 3-4 days,

this a can be done with silent reading, paired reading, or group reading, which allows the student

to focus on the oral reading skills of their part rather than decoding the whole script (Clementi, 2010). This is also helpful for struggling readers because it reduces the amount of text they feel they have to read. They only have to focus on their few lines. Clementi (2010) states that the motivation of performance keeps students willing to practice throughout the week and it provides more motivation than rereading the traditional books, passages and poems. Readers Theater is a great option for improving reading fluency because there is no right or wrong way to use it, it can be used for students in all grades and at all reading levels and teachers can create their own scripts if they need a specific topic or level (Clementi, 2010). This can allow the teacher to motivate students with any topic they may be covering. Using Readers Theater is a great way to end a unit of study and allow students to show and perform everything they have learned. Clementi (2010) stated that student's attitude about reading increased after they had used Readers Theater in the classroom and they found that they had reluctant readers who were choosing to read during their independent time.

Whole-class choral reading is a strategy some teachers have found to be engaging to their class. Whole-class choral reading is a strategy that has all students read aloud at the same time for the same text along with the teacher (Paige, 2011). One reason teachers may choose this strategy is that there are many text options, teachers could choose a trade book, short stories, poems or historical speeches and documents (Paige, 2011). This also allows this strategy to be used in any class during any unit. Teachers can find or create the text for the topic they are currently focusing on to help target specific skills. The teachers' role in whole-class choral reading is to model correct pronunciation, provide word meaning, model appropriate reading rate and expression (Paige, 2011). The students are able to listen to the passage first before being asked to read anything; the teacher is serving as a fluency model to them. In Paige's (2011)

work, he describes a teacher who began using the strategy in her classroom. The teacher began with a review of pronunciation and word meaning, she them modeled reading the text fluently while the students followed along silently (Paige, 2011). After listening the students would then all read together as one voice, along with the teacher who still provides expression modeling loud enough for all to hear (Paige, 2011). For many struggling readers, this would provide a sense of comfort to know everyone is listening to the teacher rather than them. This also allows students to have a guide if they get lost of cannot read a word, the teacher is still reading and it is not just up to the students to figure it out on their own. Following the whole class reading it is the teacher's job to provide feedback. The teacher in the study points out that the most important part of feedback is to not specifically single out any student for appropriate or inappropriate reading, it should be for the whole class (Paige, 2011). This step is as important as it is the reason everyone will participate, they feel it is a safe environment where there are others to help cover from negative feedback (Paige, 2011). If teachers follow this strategy and the feedback piece, it will help students to build confidence and not become embarrassed. This strategy is also great to use because it gets everyone reading, not just a few or one at a time.

One study completed by Swain, Leader-Janssen and Conley (2013) looked at the effect of three of the most common reading fluency interventions; repeated reading, audio listening passage preview and teacher modeled listening preview. The study used a student who did not qualify for special education but had problems with reading fluency, his baseline score was 82 words read correct per minute (Swain et al., 2013). Many teachers face this problem with students who do not qualify for special education but still need additional support to reach grade level expectations. Using interventions such as the ones in this study are the most common ways for teachers to assist students. After completing each intervention, the student's score was

measured against the baseline of 82 words read correct per minute, using repeated readings the score increased to 104 words read correct, with audio listening passage preview and teacher modeled listening preview the score increased to 110 (Swain et al., 2013). The scores with these interventions indicate students benefit from having a fluent reader model. Using audio passage preview is a great alternative if the teacher cannot always preview it for the child. Audio preview also allows the student to listen to it when they need to, not just when the teacher is available. The student then went back five months later for a post-evaluation, which found that he was able to maintain growth from the end of the intervention until the post-evaluation except for with audio listening passage preview (Swain et al., 2013). The time span on this post-evaluation could be beneficial for teachers to know with students who tend to regress during summer months. Implementing these strategies during the school year will hopefully allow the student to go into the next year and not lose as much. Also these interventions can be used throughout the summer at home. The student did not however increase their score, the study suggest that this indicates teachers need to continue with interventions for students to make additional improvements (Swain et al., 2013). Incorporating intervention time into a daily schedule can help ensure students continue to receive the interventions to make growth. As other studies suggest training peers to help carry out interventions can be very beneficial as well.

        One strategy that Arens, Gove and Abate (2018) share that is used in a classroom involves heterogeneous pairs practicing a reading passage and then recording it for their teacher to listen to later. By using a recording teachers would be able to listen to all of their students rather than just a few at a time. Teachers are often working with other groups as students are independent reading so having students record themselves allows the teachers to go back and listen later on and still be able to provide feedback. The session last one week and each week

began with a new reading passage and students were partnered up, one stronger reader with a

reader who needed more assistance, to the best ability of the teacher (Arens et al., 2018). By

pairing a stronger reader with a lower reader, the stronger reader is able to help support. They are

able to offer corrections or help with word solving. The lower reader also benefits from listening

to the stronger reader. On the first day students read through the passage to each other and then

could record or practice more, the third day students were required to fill out a peer feedback

form and continue to practice, on the fourth day students completed a second recording and then

on the last day students completed a self-evaluation and met with their teacher (Arens et al.,

2018). Completing peer feedback forms allows students to gain practice even when they are not

the reader. They can listen for fluency, decoding, and accuracy and then provide suggestion,

which could also help them with their reading. When the study began the students had a mean

score of 80.2 words correct per minute on the A to Z measure and a mean score of 74.2 on the

Star assessment, after the eight weeks of the study students had a mean score of 92.1 on the A to

Z measure and 92.2 on the Star assessment (Arens et al., 2018).

Methods

Participants

This action research was completed in a second-grade classroom that contained 18

students, 11 were boys and seven were girls. The students in the class had a wide range of

reading abilities in the areas of rate, accuracy and comprehension. At the time, the study began

there were six students in the class who were below grade level according to the reading

assessment given. At the end of the study, using the same reading assessment, four students were

reading below grade level. When the action research began there were no students identified for

special education services. When the study ended, two students were identified with reading

goals and one student was receiving tier 2 interventions in the area of reading. The students'

demographic was made up of 17 Caucasian and one was mixed-race.

Data Collection

The research took place over a 16-week period during the 2018-2019 school year. The

research began with students being give the fall FAST reading screener. Each student read three

grade level passages and then was given an overall score of correct words read per minute. Using

student's score, they were then placed with a partner who received the same or a very close

score. The students worked together for four weeks for 15 minutes every day. The time every

day started by reading a new grade level passage and then completing repeated readings of grade

level passages that had already been introduced and practiced. The partners were numbered 1

and 2. Partner 1 would read the entire passage while partner 2 followed along. Partner 1 would

then read a predetermined section and partner 2 would echo read the same section. Partner 1 then

read the next section and partner 2 would echo, this continued for the entire passage. Finally,

partner 2 would go back and read the entire passage.

When partner 2 finished reading the passage, the partners provided each other with

feedback they had been instructed on and taught. The students used a rubric and provided their

partner with feedback on any words that were missed or mispronounced, the expression the

reader used and their rate, did they read too fast or too slow. After four weeks, every student was

timed on a one-minute cold read. The partners were then switched if students' scores had

increased to ensure the students were working in homogeneous pairs. The same process

continued with the two partners for eight weeks, every four weeks all students were assessed

again on the same passage and partners were switched if necessary. Students who were not

reading at grade level were assessed more frequently, every week, to monitor progress.

After eight weeks of working in a homogeneous pair, students were reassessed using a one-minute read. The students were then ranked from highest reader (#1) to lowest reader (#18). The class was divided in half and students were paired up in the following way:

Table 1

Heterogeneous student pairings

Highest reader	1	10	
	2	11	
	3	12	
	4	13	
	5	14	
	6	15	
	7	16	
	8	17	
	9	18	Lowest reader

Students 1 through 9, who served as the fluent model, were all reading at or above grade level in correct words read per minute and in their accuracy percentage. When the pairs worked together the stronger reader, (1-9) would read the whole passage to provide a correct and fluent model. The stronger reader would then go back and read the predetermined section while the lower reader followed along and then second reader would echo read the section. This process would continue until they had completed the passage. After the two readers had completed the echo read the second reader would read the entire passage while their partner followed along, and at the end, the stronger reader partner would provide feedback to the lower reader.

During the time, students were working in heterogeneous partners students were also assessed every 4 weeks on a one-minute cold read. As students progressed, partner changes were made to ensure there was always a stronger reader to provide a fluent model to the struggling readers. When students were working in heterogeneous pairings, they used the fluency time the same as they did before with their homogeneous partner. Each day started with a new grade level passage that the pair worked on together. After complete the reading and feedback for the new passage students would use the same steps but on a repeated read with passages that had previously been read. As students worked, the teacher completed running records and observations of students. This data was used to help with passages that were chosen for students to read and if any changes needed to be made before the assessment of all students. The teacher also made sure to visit a different group each day during the feedback portion of the lesson to ensure specific and accurate feedback was being given and the teacher provided students with feedback as they read.

<center>**Findings**</center>

Data Analysis

Table 2 shows students' scores at the beginning of the year after they completed the FAST reading screener. The screener had students read three on grade level passages and then scored each student on their accuracy and automaticity. These scores were used to match students with a homogeneous partner for the first 8 weeks of this research. For the purpose of increasing and monitoring student's correct words per minute throughout this action research, that was the only scored used to pair students. Students highlighted in red were not reading at grade level.

Table 2

Students base line scores-Correct words read per minute

Student	Baseline score
Student 1	158
Student 2	151
Student 3	150
Student 4	118
Student 5	88
Student 6	87
Student 7	85
Student 8	82
Student 9	78
Student 10	66
Student 11	64
Student 12	60
Student 13	56
Student 14	50
Student 15	40
Student 16	8
Student 17	8
Student 18	7

Table 3 shows students' progress monitoring scores. Every four weeks all students were given the same passage to read for one minute to measure their correct words read per minute. The timing and scoring was completed by the teacher to ensure accuracy and consistency for all students. The scores were recorded to monitor the progress students were making with their homogeneous partner. The scores indicate that every student made some growth each week while working with their homogeneous partner.

Table 3

Students' scores with homogeneous partners

Student	Four week Progress monitor score	Four week Progress monitor score
Student 1	159	163
Student 2	154	163
Student 3	165	173
Student 4	121	125
Student 5	91	95
Student 6	123	126
Student 7	77	91
Student 8	119	129
Student 9	84	96
Student 10	64	72
Student 11	75	86
Student 12	83	100
Student 13	67	80

Student 14	78	87
Student 15	51	57
Student 16	8	13
Student 17	14	14
Student 18	9	14

Table four shows the students data while working with their heterogeneous partner. This was started immediately after the eight weeks with a homogenous partner. Students were partnered up based on the scores of the final progress monitoring passage during the first eight-week period. The progress monitoring was done in the same way, all students were given the same grade level passage and timed for one minute to score their correct words read per minute. These scores also indicate that every student was making progress week to week while working with their heterogeneous partner.

Table 4

Students' scores with heterogeneous pairs

Student	Four week progress monitor score	Four week progress monitor score
Student 1	191	195
Student 2	175	179
Student 3	204	206
Student 4	138	142
Student 5	114	116
Student 6	139	141

Student 7	90	95
Student 8	124	129
Student 9	115	119
Student 10	87	90
Student 11	101	104
Student 12	103	106
Student 13	90	115
Student 14	96	101
Student 15	73	69
Student 16	31	56
Student 17	25	48
Student 18	18	37

Table five shows the growth percentage students made while working with their homogeneous partner and their heterogeneous partner. 11 out of 18 students, 61% of the class, made larger growth when working with a heterogeneous partner. The highest and the lowest readers were among the 61% that had more growth when working with a heterogeneous partner. This supports the idea that heterogeneous pairing can help support all level of readers. Seven out of the 18 students, 39% of the class, made larger growth when working with a homogeneous partner.

Table 5

Student's growth %

Student	Homogeneous pairing	Heterogeneous pairing
Student 1	3%	19.60%

Student 2	7.94%	9.80%
Student 3	15.30%	19.07%
Student 4	5.93%	13.60%
Student 5	7.95%	22.10%
Student 6	44.82%	11.90%
Student 7	7.05%	4.30%
Student 8	57.31%	0%
Student 9	23.07%	23.90%
Student 10	9.09%	25%
Student 11	34.37%	20.90%
Student 12	66.66%	6%
Student 13	42.85%	43.70%
Student 14	74%	16.09%
Student 15	42.5%	21.05%
Student 16	62.5%	330.70%
Student 17	75%	242.80%
Student 18	100%	164.2%

Discussion

Summary of Major Findings

The findings of this study indicate that heterogeneous pairings seem to have the biggest impact on the highest and lowest readers. This indicates that when the lower readers are able to hear a text read aloud with fluency first, they have a greater chance of also increasing their own

fluency. By working with a reader who is fluent and accurate, the lower reader is also able to

receive immediate feedback and make corrections immediately. The higher reader is also

benefitting by acting as the tutor and gaining additional exposure with the text. The data also

shows that all students made growth working with both a homogeneous and heterogeneous

partner. Finally, the students who were in the middle of the class seemed to make the most

growth while working with a homogeneous partner.

Limitations of the Study

One limitation of the study was that it was conducted in only one classroom by one

teacher. If the same study had been completed in more than one classroom and by multiple

teachers, the results may have been different. The students in the classroom and their needs also

factored into the results of the study. The classroom the study was done in had students who

became identified with reading special education goals throughout the study. There were also

students with behavior and attendance problems that factored into their overall growth they

made.

Time was also a limitation of this study. Although the action research was able to take

place over 16 weeks and the students were able to make substantial growth, more time would

allow for even more data. The extra time would also allow the teacher to carry out more than one

strategy with the students. If the action research was carried out over a longer period of time the

research could also look at how students do at maintaining the growth they made while

participating in a specific intervention. The extra time would also allow the teacher to make sure

students were properly trained and be able to check in more often. It can take students a few tries

to make sure they are providing the modeling and giving the feedback correctly. The extra time

would provide more days that students are carrying out the modeling and feedback portions with

fidelity.

Another limitation of the study was students' typical growth they make. While students were participating in this study were continuing to receive additional reading support through small groups, intervention time for all students and whole group reading. The growth experienced could be a combination of all parts of the school day. Completing the homogeneous pairing first and then the heterogeneous pairing could also be a limitation. The students who were in the middle of the class and made the most growth with homogeneous pairing could have been due to the fact that they just needed additional practice to make up for the summer loss they experienced.

Further Study

An area of further study would be to complete the study at a time when students were not receiving so much additional reading supports. This could give a better understanding of what was truly making an impact on scores. Students participating in a summer school program or tutoring program could be used as less teacher instruction would be occurring during that time. Conducting the study over two years and switching the order of heterogeneous and homogeneous partners would also be an area of further study. This could provide information into if the timing of the specific partners made a difference or just receiving additional supports.

Further study could also be done on the strategy that students use to help improve their fluency. The students in this action research only used peer modeling while working in heterogeneous and homogeneous pairs. The literature review describes many other strategies that could be tested and compared in the classroom. The students could be split into groups and try various strategies at once or the study could be completed as it was in this action research project. Two or more reading fluency strategies could be tested, one at a time, and then compare

the results after the intervention is finished.

Conclusion

Based on the results of the action research that took place, using heterogeneous partners has a larger impact on students improving their reading scores than homogeneous partners. When looking at the graphs above, every student made growth when working with both heterogeneous and homogeneous partners. This indicates that just having students work together, provide feedback, and peer modeling to each other can benefit all students. Creating time for students to practice fluency and have someone to listen and respond has a great influence on their skills. When they are given the feedback immediately they can begin to make the changes immediately and practice their reading correctly.

Looking at the impact of the specific pairings, more students, 61% of the class had greater growth when working with a heterogeneous partner. The lowest three readers in the class had the highest percentage of growth increase when working with a heterogeneous partner, over 100% growth for all three. These students were able to hear a fluent peer preview the passage for them and echo read a section right after their peer before having to read the passage on their own. The students' scores continue to reflect this growth in their weekly progress monitoring as they continue to read with more fluent readers each day. They are not only increasing their number of words but they have improved their accuracy as well.

The strongest five readers in the class also saw a greater percentage growth with a heterogeneous partner than they did with a homogeneous partner. Although these students were already ready above grade level, the additional time they spent with the text, helping the lower reader seemed to increase their scores as well. These readers were responsible for correcting their partner's words, providing feedback on their reading rate and helping with some vocabulary

that may have come up throughout the passages. All of this allowed them to have more time with their eyes on the text than if they were reading with a homogeneous partner and both readers could get through the passage without needing assistance. When looking at the scores of their heterogeneous partners, it also shows that these students were able to successfully help their peers to improve scores through their modeling and feedback.

Heterogeneous reading partners, when used with peer text preview and repeated readings, helped to increase the scores of both the highest and lowest readers in the class. These results show that the using peers in the classroom is possible and can achieve great results. After students were taught expectations they were able to use them independently to help their peers who were lower readers. This allowed the teacher to be able to move from group to group and not have to only work with one student at a time. It helped students to be able to read more fluently, which will also help improve comprehension scores as well. The use of peers also made it possible for every student every day to receive immediate feedback, hear fluent reading and be able to practice their own fluency skills.

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